

## **DIVISION 2 - SITE WORK**

### **SECTION 02513 - ASPHALTIC PAVING**

#### **PART 1 - GENERAL**

##### **1.01 - DESCRIPTION**

- A. For other requirements see General Conditions and General Requirements (Division 1).
- B. SCOPE OF WORK
  - 1. Provide patching of existing paving for the following locations.
    - a. Drives and parking at conduit trenching
  - 2. Re-stripe existing asphaltic pavement as required at conduit trenching.
  - 3. Provide new base in areas to be repaired.

##### **1.02 - QUALITY CONTROL**

- A. MATERIALS & METHODS
  - 1. Comply with Michigan Department of Transportation requirements; materials produced by bulk asphalt concrete produced regularly engaged in the production of hot-mix, hot-laid asphalt concrete materials.
- B. Contractor to be in business successfully for a period of three (3) years minimum and to own proper equipment to perform the work.
- C. ALLOWABLE TOLERANCES  
Provide asphalt paving within the following tolerances:
  - 1. Compacted Thickness: Base course, 1/2" plus or minus; surface course, 1/4" plus or minus.
  - 2. Surface Smoothness: Base course, 1/4" in 10' maximum, surface course, 3/16" in 10' maximum.

##### **1.03 - REFERENCE STANDARDS**

The following publications of the issues listed below, but referred to thereafter by basic designation only, form a part of this specification to the extent indicated by the references thereto.

- A. Michigan Department of Transportation - Construction Material Specifications, Latest Edition.
- B. American Society for Testing and Materials (ASTM).
- C. Construction and Materials Specifications of the Michigan Department of Transportation.
- D. Federal Highway Administration, Department of Transportation (FHWA).
- E. Federal Specifications (FS): R-P-355D Pitch, Coal Tar Emulsion (Coating for Bituminous Pavements).

#### **1.04 - BUILDING CODES AND INSPECTIONS**

- A. Michigan Building Code.

#### **1.05 - COORDINATION**

- A. Contractor to coordinate the work with other Contractors or Subcontractors to expedite the work.
- B. Allow reasonable time for other Contractors to perform their work.

#### **1.06 - TESTING**

- A. This Contractor to comply with Section 02205 - EARTHWORK for this work.
- B. Contractor to pay for all testing required in these Specifications.

#### **1.07 - JOB CONDITIONS**

- A. WEATHER LIMITATIONS  
Do not install base course over wet or frozen subgrade. Do not apply prime or tack coats over wet base course or when temperature is 50°F or below. Apply surface course only when base course is dry and air temperature is 40°F or above.
- B. PROTECTION  
Protect all adjacent work and property; provide barriers, warning lights, and all other devices necessary for protection.

## **1.08 - PRODUCTS DELIVERY, HANDLING AND STORAGE**

- A. To follow Michigan Department of Transportation requirements.

## **1.09 - SUBMITTALS**

- A. MATERIALS LIST  
Submit list identifying types and sources of ALL materials proposed for the work; obtain approval before proceeding.

## **PART 2 - PRODUCTS**

### **2.01 - MATERIALS**

- A. PAVING (All products as approved by the Michigan Department of Transportation)
  - 1. Sterilization for subgrade: Weed killer compatible with asphalt concrete base.
  - 2. Aggregate base:
  - 3. Leveling Course:
  - 4. Surface Course:
  - 5. Tack Coat: RS-1, SS-1 or SS-1h asphalt emulsion grades.
  - 6. Joint Sealer: liquid asphalt.
  - 7. Rubberized hot poured crack filler, ASTM D-1190 and ASTM-D-34-5.
- B. PAVEMENT MARKINGS  
Without glass beads, yellow.
- C. PARKING BLOCKS  
Reuse existing. Replace all parking blocks damaged due to construction work.

## **PART 3 - EXECUTION**

### **3.01 - EQUIPMENT**

- A. COMPACTING EQUIPMENT  
Furnish self-propelled rollers, minimum 10-ton weight. Hand-held plate vibrator may be used in areas inaccessible to rollers.
- B. HAND TOOLS  
Furnish rakes, shovels, tampers and all other miscellaneous equipment required to complete the work.

- C. COATING EQUIPMENT  
Furnish equipment especially designed for the application of crack filler, seal coat and pavement markings.
- D. Furnish power saws to cut edges of existing pavement areas to be replaced.
- E. Trucks for asphalt concrete mix to be insulated if air temperature less than 50°. Provide insulated covers.

### **3.02 - REMOVALS**

- A. Remove all existing blacktopping and granular base as required to perform the work. Edges of areas to be removed to be saw-cut vertically and in straight line by power saws only. Contractor to clean all slurry and debris from saw cutting from all walks and drives at the end of each day.

### **3.03 - PREPARATION OF SUBGRADE**

- A. Proofroll and compact subgrade as required to finish firm, even surface. Fill and consolidate any dented and depressed areas. Remove any mud or uncompactible or unsuitable material and replace with clean fill; compact solidly. Contractor to get reimbursed ONLY if undercut of subgrade exceeds 2'0". Compact to 98% minimum density according to ASTM 698, Method "C", except 100% the upper one foot. Do not work if frozen soil or ice or mud on the surface.
- B. Apply "Pramitol 25E" commercial sterilant by CIBA-GEIBY Corp. of Greensboro, North Carolina, or approved equal by EPA's On-Site Representative, at a rate of 0.66 fl. oz. per sq. yd. in a minimum of 100 gallons of water. Follow manufacturer's instructions for application methods. Submit literature for approval.

Ortho "Triox" vegetation killer by Chevron Chemical Company will be acceptable product also.

### **3.04 - STONE BASE INSTALLATION**

- A. Install two (2) courses of 6" thick each, Michigan Department of Transportation approved, granular base after compacting each layer through full depth to a minimum of 98% of the "test strip". Follow Michigan Department of Transportation procedures. Base to be graded properly to receive surface course, and to match adjacent surface elevations.

- B. Sides of base to be properly supported along edges. Provide COMPACTED fill material as required, 18" minimum width.

### **3.05 - ASPHALT CONCRETE SURFACE COURSE**

- A. Apply 2" thick (after compaction) asphalt concrete surface course over entire surface of paved area. Use tack coat at a rate of 0.20 gallons per square yard over leveling course. Allow primer or tack coat to dry before applying final asphalt concrete surface, 2" thick.

Apply tack coat at all the joints between new and existing surface courses.

Compact surface courses using ten (10) ton rollers immediately after mix cooling off enough to support equipment. Rolling to be continuous until surface is free of roller marks.

Use VIBRATING PLATE COMPACTORS in areas inaccessible to rollers.

Use HAND TAMPERS at all exposed edges. Tamper edges at 45°.

### **3.06 - JOINT SEALER APPLICATION**

- A. Coat all edges of new blacktop surfaces with hot asphalt cement sealer, including all exposed joints at curbs, catch basins, manholes, joints with existing pavements, etc.
- B. Clean all areas splashed during joint sealer application to satisfaction of EPA's On-Site Representative and Architect.

### **3.07 - PAVEMENT MARKING**

- A. Provide parking markings as required at asphalt patching for conduit trenching. Include road markings where noted or when required. Provide 4" lines, U.O.N.
- B. PARKING BLOCKS: Re-install and secure with minimum of two (2) 18" lengths of 5/8" diameter steel rods for each block, after work is finished.

### **3.08 - PROTECTION**

- A. Protect paving from damage due to construction and vehicular traffic until joint sealer is set and cured and does not pick up under foot of wheeled traffic.

### **3.09 - ACCEPTANCE**

- A. All surfaces to be smooth per paragraph 1.02, without pockets, and be gently sloped to provide drainage of the entire pavement. Any low spots ponding water to be cut out and to receive additional top course added until proper drainage is achieved.

### **3.10 - CLEAN-UP**

- A. Contractor to remove all trash, leftovers, tools, equipment, etc. just after completion of the work.

### **3.11 - GUARANTEE**

- A. All work to be guaranteed for one (1) year after FINAL acceptance of the WHOLE project by the EPA.

END